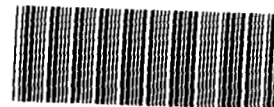


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Rocky Mountain
Remediation Services, L.L.C.
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INTEROFFICE MEMORANDUM

DATE December 11, 1995

TO Distribution

FROM S L Myrick, RMRS Accelerated Actions, Bldg T893B, X5051 *SLM*

SUBJECT COMMENT REVIEW REQUEST FOR CLOSED CELL FOAMING OF
UNDERGROUND STRUCTURES PROPOSED ACTION
MEMORANDUM (PAM) - SLM-002-95

Action Please review and return comments by December 20

Enclosed is the Closed-Cell Foaming of Underground Structures PAM (Enclosure 1). This PAM has been prepared by the Accelerated Actions group and is submitted to you for comments. Please review and return your comments sheet (Enclosure 2) to me by December 20, 1995. Your cooperation in this matter is appreciated.

If you have any questions or need additional information regarding the above document, I can be contacted at extension 5051 or digital page 4343 or you can contact Mark Burmeister at extension 5891 digital page 4630.

SLM la

Enclosure
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ADMIN RECCRD

SW-A-004160

Proposed Action Memorandum

Closed-Cell Foaming of Underground Structures

Draft

December 11, 1995

U S Department of Energy
Rocky Flats Environmental Technology Site
Golden, Colorado

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1 0 PURPOSE

The purpose of the Proposed Action Memorandum (PAM) is to present the Department of Energy/Rocky Flats Field Office's (DOE/RFFO) plan for the filling of underground structures including tanks and other structural units comparable to USTs, with closed-cell foam at Rocky Flats Environmental Technology Site (RFETS). The purpose of filling tanks and other structural units with a closed-cell foam is to eliminate the potential of infiltration of ground water or surface water into the structures. Infiltration of contaminated ground water or surface water may impact the structures. The applied foam prevents any further ground water or surface water migration from entering into the tanks/units either through the fill pipe or through cracks or breeches in containment.

This action will reduce the risks posed to human health and the environment in the most expedient and cost effective manner possible. The first concrete underground storage tank is scheduled for foaming in January 1996, and six more concrete underground storage tanks to follow throughout FY96. Foaming will continue in outyears after completing an investigation of all health and environmental risks. RFETS is located in Jefferson County, Colorado.

2 0 PROJECT DESCRIPTION

2 1 Proposed Action

Prior to filling a tank/structure, an accelerated action routine removal of the contents may be performed. After removing the contents, a thorough rinsing will be performed to remove any remaining residue. Following each rinsing action a rinsate sampling event will occur. The rinsate sample will document the condition of the tanks/structure. All surfaces planned for foaming should be dry and free of dew or frost. Typical equipment used to foam may include Urethane foam, a multi-component high pressure spray unit, resin pumps and isocyanate pumps. The proportioning pump ratio being one-to-one.

There were several factors taken under consideration when the final decision to foam was made. One of the best advantages of foaming as oppose to a cementitious material (concrete, grout, etc) is in the event a tank or structure's final closure is removal, the foam would not have the same weight constraints a cementitious would have. For example, the foam weight for a 20 thousand gallon tank is 50-70 pounds. Other advantages to foaming is it expands immediately, and there are no significant temperature restrictions to foaming. A 20 thousand gallon tank can be filled in approximately 15 minutes. Since the foam is a non-porous closed cell product, ground and surface water will be stopped from entering the foamed area and the foam will not act as an absorbent.

A work plan or an Integrated Work Control Plan (IWCP) will be approved prior to all foaming activities to ensure tasks such as sampling and waste management are addressed. A letter of notification for each separate foaming project will document to the agencies all aspects and issues specific to the project identified. The notification letter will be sent 30 days prior to commencement of foaming.

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Foaming Proposed Action Memorandum

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2 2 Waste Management Considerations

All wastes (if any) generated during associated foaming activities (i e , combustibles, glass, metal) will be characterized and handled appropriately according to (CCR) 6 CCR 1007-3, Parts 2, 99, 100, 260 through 268, and RFETS waste packaging procedures Source material removed from the underground structures will be sampled to provide adequate characterization of the wastes

3 0 CONSISTENCY WITH LONG TERM OBJECTIVES

Foaming underground structures is consistent with the RFETS long term objective, to achieve the most rapid and economical stabilization of the Site. The RFETS Accelerated Site Action Project (ASAP) addresses interim closures (Environmental Restoration) as an important part of the site closure. By completing the foaming activities, the underground structures will represent agreements and goals which have been met between Kaiser Hill and the United States Department of Energy, Rocky Flats Field Office (DOE, RFFO), Colorado Department of Public Health and the Environment (CDPHE), and United States Environmental Protection Agency (EPA) Region VIII.

REVIEW COMMENT SHEET

Time Spent on Review _____ hrs

Return to _____

If questions on content, please call the SME

Page _____ of _____

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Please review the attached procedure

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Rev _____

Draft _____

Title _____

☐ Internal Review

☐ Parallel Review

☐ Verification

☐ Validation

☐ Revalidation

General (G) comments require resolution but do not require resolution acceptance Mandatory (M) comments require resolution and resolution acceptance
1-A03-PPG-004 provides complete definitions of General and Mandatory comments

TYPE G or M	PAGE	SECTION OR LINE #	COMMENT	DISPOSITION	Disposition Accepted INIT/DATE
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POC/Reviewer (Comments not signed by POC/Reviewer will be considered unofficial and not subject to resolution)

n No Comments

n This procedure revision has no impact or relevance to our discipline or organization and we waive need to concur

Resolutions Accepted

Name _____

Signature _____

Initials _____

Date _____

Ext./Pager/Fax _____

Bldg./Dept./AGM _____

Date _____

NOTE These reviews are completed by qualified reviewers in accordance with 1-A03-PPG-004 in concert with 1-A01-PPG-001 and 1-A02-PPG-003

RF-47947 (5/93)

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